Module Specification

Web Programming

Version: 2023-24, v3.0, 04 Jan 2023

Contents

Part 1: Information

Module title: Web Programming

Module code: UFCFB3-30-1

Level: Level 4

For implementation from: 2023-24

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes

Outline syllabus: N.B. It is not intended that the following list of topics be in chronological order of presentation. For example the programming stream could be presented over the whole year as part of the scheduled lectures.

Introduction to the module: WWW, web programming and web development

Future trends for the WWW and introduction to web frameworks

Development issues (covered as appropriate throughout module)
LESP issues including usability and accessibility, Testing, Version control, green or
sustainable aspects

Programming and scripting languages used to develop assignment website e.g.
HTML, CSS, JavaScript, Python or PHP both running on XAMPP, also JQuery, Ajax,
JSON, REST

Responsive Web Design

Web Client and Web Server

Browsers, Terminal utilities:
Apache web server
Internet and WWW basics
TCP/IP stack concepts, HTTP, FTP
HTML/CSS
HTML 4.01/5
CSS/2/3

Client-server interaction:
CGI, server side scripting e.g. Python or PHP

Database:
DB fundamentals
SQL –commands
mySQL – using phpMyAdmin to create and administer DBs

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning:

Lectures are used to present basic concepts and context and provide an introduction to the laboratory work and independent learning. Laboratory sessions provide space for students to initiate practice on the materials deriving from the lectures whilst being able to receive personal support as required. Later in the year the laboratory sessions provide a space for teams and tutors to interact during the website development process.

Independent learning:

Students are expected to work outside scheduled classes on practice and assignment work. During the team-based assignment, students are also expected to self-manage their teams in terms of arranging meetings, allocating work and monitoring progress.

This module will involve 6 hours contact time per fortnight. The time will be more or less equally divided between lecture sessions and laboratory sessions

Activity (hrs)

Contact time (72)

Assimilation and development of knowledge (148)

Exam preparation (20)

Coursework preparation (60)

Total study time (300)

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

> **MO1** Identify and define common Internet/WWW concepts

> **MO2** Understand, select and use a range of relevant web technologies to facilitate the development of basic websites

MO3 Understand and use web servers efficiently and securely to host small websites

MO4 Create relatively complex SQL databases and use websites to interface with these databases

MO5 Consider human factors such as accessibility requirements when designing websites.

MO6 Work individually or as a team member to reflect on the development process of a small website

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

Reading list: The reading list for this module can be accessed at readinglists.uwe.ac.uk via the following link https://uwe.rl.talis.com/modules/ufcfb3-30-1.html

Part 4: Assessment

Assessment strategy: The assessment is designed to ensure that students' understanding and skills are developed incrementally and the assessment strategy provides continual formative feedback opportunities and allows students to develop their skills with the materials being presented in the lectures and laboratory sessions. There is only one assessment for this module.

In the assessment, outputs are from a design and development tasks of a Website project. Each student will work on the project individually and there will be opportunities to integrate their work with other students. Individual assessment and feedback will be provided within the assessment strategy. Each student will submit website code, a presentation video, and a brief report covering reflection on

technologies used in the project, testing, legal, ethical, social and professional aspects of the website. Written feedback will be provided as part of the summative assessment.

For resit, students will have to design and develop a website on a related problem domain and it will be covering the same technologies and LOs tested in the main sit component.

Assessment tasks:

Project (First Sit)

Description: Design and Development of a Website

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6

Project (Resit)

Description: Design and Development of a Website

Weighting: 100 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4, MO5, MO6

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Computer Security and Forensics {Foundation} [GCET] BSc (Hons) 2022-23